

CLAIMS

We claim:

1. A network tap that permits one or more attached devices to communicate with a node of a network, the node of the network communicating with a network cable transmitting network data thereon, the network cable having a first segment and a second segment, the network tap comprising:

a first set of tap ports configured to receive a copy of network data obtained from the network cable, wherein a first attached device can be selectively connected to the first set of tap ports;

a second set of tap ports configured to receive a copy of network data obtained from the network cable, wherein a second attached device can be selectively connected to the second set of tap ports; and

means for combining the network data carried on the first segment and the second segment of the network cable and delivering the combined network data to the first set of tap ports and the second set of tap ports.

2. The network tap as recited in claim 1, wherein the first and second sets of tap ports comprises a first and second tap port, wherein each of the first and second tap port is configured to be able to receive a copy of the combined network data.

3. The network tap as recited in claim 2, wherein the first attached device can be selectively connected to the first tap port of the first set of tap ports and wherein a third attached device can be selectively connected to the second tap port of the first set of tap ports.

4. The network tap as recited in claim 3, wherein the second attached device can be selectively connected to the first tap port of the second set of tap ports and wherein a fourth attached device can be selectively connected to the second tap port of the second set of tap ports.

5. The network tap as recited in claim 2, wherein at least one of the first and second tap ports is configured to receive device data from the corresponding attached device.

6. The network tap as recited in claim 1, wherein the means for combining the network data carried on the first segment and the second segment of the network cable and delivering the combined network data to the first set of tap ports and the second set of tap ports comprises a switch.

7. The network tap as recited in claim 6, wherein the means for combining the network data carried on the first segment and the second segment of the network cable and delivering the combined network data to the first set of tap ports and the second set of tap ports further comprises a fan out buffer disposed between the switch and the first and second set of tap ports.

8. The network tap as recited in claim 1, further comprising means for inserting received device data into the network cable without disrupting the flow of data therein.

9. The network tap as recited in claim 8, wherein the means for inserting received device data into the network cable without disrupting the flow of data therein comprises an integrated circuit.

10. The network tap as recited in claim 9, wherein the integrated circuit comprises a field programmable gate array.

11. The network tap as recited in claim 8, wherein the means for inserting received device data into the network cable without disrupting the flow of data therein comprises an Ethernet switch.

12. The network tap as recited in claim 2, wherein the first and second tap ports are capable of operating in a plurality of modes, each mode being defined by enabling or disabling the ability of the first and second tap ports to receive at least one of network data and device data.

13. The network tap as recited in claim 12, wherein selecting one of the plurality of modes in which the first and second tap ports may operate comprises:

a management port configured to selectively connect to a remote computer; and

an integrated circuit configured to receive management data from the management port to at least indirectly enable or disable the ability of the first and second tap port to receive at least one of network data and device data.

14. The network tap as recited in claim 12, wherein means for selecting one of the plurality of modes in which the first and second tap ports may operate comprises one or more manual switches located on the network tap.

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